

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)  
Susquehanna Steam Electric Station - Unit 1

DOCKET NUMBER (2)  
05000387

PAGE (3)  
1 OF 3

TITLE (4)  
Drywell Cooling Logic Isolation

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
5	30	98	98	-- 011	-- 00	6	29	98	Susquehanna SES - Unit 2	05000388
									FACILITY NAME	DOCKET NUMBER
										05000

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)			
4	000	20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	X 50.73(a)(2)(iv)	OTHER
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME  
C. T. Coddington - Senior Engineer, Licensing

TELEPHONE NUMBER (Include Area Code)  
717 / 542-3294

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).  NO

EXPECTED SUBMISSION DATE (15)  
MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 30, 1998, at 0240 hours, with Unit 1 in Condition 4 (Cold Shutdown) at 0% power, a Division 2 Drywell Cooling Isolation occurred. The Containment Instrument Gas compressor outboard suction valve and four (4) outboard Reactor Building Chilled Water System isolation valves repositioned. These valves provide a containment isolation function. The replacement of relays in the Division 2 (Channels B and D) Drywell Cooling Isolation Logic was in progress. The plan for performance of this work included isolation of the circuit containing the relays being replaced, removal and replacement of the relays and restoration of the circuit. The plan was to perform the work on one channel at a time to prevent a Division II isolation from occurring. In preparation for the replacement of the relays in the B channel, the Unit Supervisor (Utility; Licensed) inadvertently released work to isolate the D channel. He then released replacement of the relays on the B channel. With the D channel isolated, removal of the relays on the B channel completed the Division II isolation logic. With both the B and D channel isolation signals present an isolation of the Division 2 Drywell Cooling occurred as designed. It was determined that no valid isolation signal had occurred and the isolation logic was reset. This event was determined to be reportable per 10CFR50.73(a)(2)(iv). The causes of this event were determined to be: (1) inadequate self-checking on the part of the Unit Supervisor releasing the work, and (2) less than adequate planning of the relay replacement. The individual involved was coached and counseled regarding the importance of self checking and attention to detail. Corrective actions remaining to be completed are: (1) revise the Status Control form to identify the channel/division of equipment affected, (2) review of this event with appropriate personnel, (3) revisions to maintenance procedures to require separate Work Authorizations for each channel/division's equipment, and (4) revise the status control program to more clearly define mechanisms to be used for isolation of circuits and components. There were no safety consequences or compromises to the health and safety of the public as a result of the isolation.



**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Susquehanna Steam Electric Station - Unit 1	05000				
	387	98	-- 011	-- 00	2 OF 3

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

**EVENT DESCRIPTION**

On May 30, 1998, at 0240 hours, with Unit 1 in Condition 4 (Cold Shutdown) at 0% power, a Division 2 Drywell Cooling isolation occurred. The Containment Instrument Gas compressor outboard suction valve (EIS Code: NH) and four (4) outboard Reactor Building Chilled Water System (EIS Code: KM) isolation valves repositioned. The replacement of relays in the Division 2 (Channels B and D) Drywell Cooling Isolation Logic was in progress. The plan for performance of this work included isolation of the circuit containing the relays being replaced, removal and replacement of the relays and restoration of the circuit. The plan was to perform the work on one channel at a time to prevent a Division II isolation from occurring. In preparation for the replacement of the relays in the B channel, the Unit Supervisor (Utility; Licensed) inadvertently released work to isolate the D channel. He then released replacement of the relays on the B channel. With the D channel isolated, removal of the relays on the B channel completed the Division II isolation logic. With both the B and D channel isolation signals present an isolation of the Division 2 Drywell Cooling occurred as designed. It was determined that no valid isolation signal had occurred and the isolation logic was reset.

**CAUSE OF EVENT**

The root causes identified for this event are:

1. Inadequate self-checking on the part of the Unit Supervisor releasing the work.
2. Less than adequate planning of the relay replacement. Instead of separate work documents to replace relays in the separate channels, one work document was used. In addition, the information provided with the work documents used to isolate the two channels was less than adequate.

**REPORTABILITY/ANALYSIS**

On May 30, 1998, a Division 2 Drywell Cooling isolation occurred. The Containment Instrument Gas compressor outboard suction valve and four (4) outboard Reactor Building Chilled Water System isolation valves repositioned. These valves provide a containment isolation function. The plan for performance of this work included isolation of the circuit containing the relays being replaced, removal and replacement of the relays and restoration of the circuit. The plan was to perform the work on one channel at a time to prevent a Division II isolation from occurring. In preparation for the replacement of the relays in the B channel, the Unit Supervisor (Utility; Licensed) inadvertently released work to isolate the D channel. He then released replacement of the relays on the B channel. With the D channel isolated, removal of the relays on the B channel completed the Division II isolation logic. With both the B and D channel isolation signals present, an isolation of the Division 2 Drywell Cooling occurred as designed. It was determined that no valid isolation signal had occurred and the isolation logic was reset. This event was determined to be reportable per 10CFR50.73(a)(2)(iv). There were no safety consequences or compromises to the health and safety of the public as a result of the isolation.



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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

In accordance with the guidelines provided in NUREG-1022, Revision 1, Section 5.1.1, the required submission date for this report was determined to be June 29, 1998.

**CORRECTIVE ACTIONS**

The following corrective action was identified and completed:

- The individual involved in the event was coached and counseled regarding the importance of self checking and attention to detail.

The following corrective actions have been identified and will be completed:

- Revise the Status Control form to identify the channel/division of equipment affected.
- Review this event with Operations personnel with the emphasis on human performance aspects and methods for avoiding similar errors.
- Revise the appropriate Maintenance procedure(s) to require separate Work Authorizations for each channel or division's equipment.
- Revise the status control program to more clearly define mechanisms to be used for isolation of circuits or components.

**ADDITIONAL INFORMATION**

Past Similar Events: None associated with the Status Control program.

Failed Component: None